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In order to establish proper guidelines for cooperative purchasing of supplies and equipment by school districts in association with other school districts, a statistical study was undertaken. Public school districts in the U.S. which had combined their purchasing power were identified and eighty-four organizations were classified according to--(1) geographic location, (2) composition of membership, (3) number of students, (4) number of years in operation, and (5) items purchased and money expended. Materials furnished by these organizations as well as materials obtained from the literature were employed in the construction of an interview guide to be applied to ten selected purchasing organizations which were the objects of the main study. Tentative guidelines were prepared as a result of interviews and these were validated by submitting them to the person with the most expertise in each of the 84 organizations. A guideline was accepted if it was found by the Chi Square Test to be significant at the .05 level. Sixty-three guidelines were accepted. (NI)

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THE DEVELOPMENT OF GUIDELINES FOR
COOPERATIVE PURCHASING AGENCIES AND
PROCEDURES FOR PUBLIC SCHOOL DISTRICTS

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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The Development of Guidelines for
Cooperative Purchasing Agencies and
Procedures for Public School Districts

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June 1969

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INTRODUCTION

The effectiveness of any public organization, including public schools, in a democratic society is dependent upon the degree to which it maintains public confidence and support. This confidence and support can be maintained only if the public understands the purpose of the schools and knows that prudent practices prevail in their operation. Since the public school is among the largest enterprises in most communities, effective expenditure of school money is essential to promoting confidence in school management. Because the school budget is the financial embodiment of the school program, its use is one means of controlling expenditures for such items as supplies and equipment. The purchasing of the necessary supplies and equipment for use in the educational program and for the various auxiliary services represents a significant expenditure in the school budget. Whatever can be done to save funds expended for these items should contribute to continued public confidence and support.

Writers in the field of public school administration, public school business, and public school finance have advocated that school districts should cooperatively purchase supplies and equipment. Most of these writers have stated that the county or intermediate education district could serve as the framework for the joint purchasing program. The cooperative purchasing plans are of four types: (1) a number of public school districts voluntarily pool all or a part of their purchases, (2) two or more local government agencies (city, school district, or county) voluntarily cooperate in purchasing, (3) two or more local government agencies are required by law to make purchases through a single central department, and (4) the state serves as a central purchasing agent for the public school districts of the state.

The school districts which have engaged in the practice of cooperative purchasing in the procurements of supplies and equipment have found that such a practice is both economical and practical.

Public school authorities are generally empowered by statute in the several states to provide the supplies and equipment for carrying on the work of the schools which are reasonably necessary and useful for the convenience of teachers and pupils. In addition, twenty-three states have passed legislation permitting public school districts to join with other public school districts in the procurement of equipment and supplies. These twenty-three states are as follows: Alaska, Arizona, California, Colorado, Florida, Idaho, Indiana, Iowa, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nevada, New Jersey, New York, North Dakota, Oklahoma, Oregon, Pennsylvania, Utah, Washington, and Wisconsin.

OBJECTIVES

The primary purpose of the study was to establish guidelines which could be used by public school districts in the United States desiring to purchase supplies and equipment cooperatively with other school districts. Essential to the primary purpose of the study was the determination of the organizational structure of cooperative agencies, the bidding procedures, the current items of purchase, the legal binding arrangements, and the money saving probabilities.

RESEARCH METHODS AND PROCEDURES

The general method of research employed in this study took into consideration both the historical and descriptive approaches. The research design followed the historical procedures of gathering data from current and past practices, analyzing the data, and drawing conclusions on the value of the practices. Since only a very limited amount of literature relating to the problem of this study existed, it was necessary to incorporate descriptive techniques of research, and, in particular, the interview, as means of securing the necessary data.

Selection of the Sample

The quota sampling technique was employed to select ten cooperatives which were representative of those that had organized to purchase supplies and equipment cooperatively. The first step in this process was the identification of public school districts in the United States which had combined their purchasing power to purchase supplies and equipment. The sources employed to determine school districts of this nature were the fifty state departments of education, the sixty-six school study councils, the literature, and letters of inquiry directed to geographically selected school districts in the United States. Responses concerning school districts engaged in cooperative purchasing were received from all the state departments of education and from sixty of the sixty-six school study councils. Eighty-four cooperative purchasing organizations which included public school districts in their membership were located.

A questionnaire which requested specific information was sent to each of the eighty-four cooperative purchasing organizations. Responses were received from eighty-two of the cooperatives and the information was tabulated for analysis. These eighty-two organizations were then classified according to the following criteria: (1) geographic location, (2) composition of membership, (3) number of students enrolled, (4) number of years in operation, and (5) items purchased and amount of money expended. A more detailed explanation of these criteria and the rationale for their inclusion is presented here.

Geographic location. Consideration was given to the regional setting in geographic classification of the organizations. Table I shows the division of the fifty states into the nine regions. It was assumed that the wide range in geographical locations of the selected organizations might contribute to greater representativeness of the sample.

Composition of membership. The organizations were identified as to the number of public school districts, other governmental agencies, and parochial schools in the cooperatives. It was assumed that the membership of the organization might have a bearing upon the factors of organizational structure and operational procedures.

Number of students enrolled. Enrollment of the largest and smallest public school districts in each organization was determined. It was assumed that the number and the range of students enrolled in the school districts might be an important factor in providing a comparatively representative sample.

Number of years in operation. Each organization was classified by the number of years it had been in operation. It was assumed that selecting organizations with varying years of experience might be an important factor in identification and solution of cooperative purchasing problems.

Items purchased and money expended. The items purchased and the amount of money expended for the items were ascertained by each organization. It was assumed that selecting organizations which purchase in various areas and expend different amounts of money might provide a more characteristic and descriptive sample of the activities of the organizations.

Geographically, these organizations were located in ten states and represented seven of the nine regions, as indicated in Table I. No cooperative purchasing organizations were found in Region 5. In Region 6 only one cooperative, composed primarily of governmental agencies other than school districts, was located. Membership sizes ranged from five to sixty public school districts. Seven of the ten organizations consisted exclusively of public school districts, while one included parochial schools, one included city and county purchasing departments, and one included a junior college. Enrollment sizes ranged from a high of 1500 students in one school district of a cooperative to 96,848 students in another. Enrollment sizes also ranged from a low of 45 students in one school district of a cooperative to 2,164 students in another.

The number of years in operation ranged from three to forty-three years. The areas of purchase varied from 5 to 14, while the amount of

TABLE I

REGIONAL DIVISIONS OF THE UNITED STATES^a

Region	States
1	Maine, New Hampshire*, Vermont, Massachusetts, Rhode Island, Connecticut.
2	New York, New Jersey, Pennsylvania*.
3	Ohio*, Indiana, Illinois, Michigan*, Wisconsin.
4	Minnesota, Iowa, Missouri*, North Dakota, South Dakota, Nebraska, Kansas.
5	Delaware, Maryland, D.C., Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.
6	Kentucky, Tennessee, Alabama, Mississippi.
7	Arkansas, Louisiana, Oklahoma, Texas*.
8	Montana, Idaho, Wyoming, Colorado*, New Mexico*, Arizona, Utah, Nevada.
9	Washington*, Oregon*, California, Alaska, Hawaii.

^a Orlando F. Furno, "The Cost of Education Index," School Management, XII (January, 1968), p. 67.

*State in which one of the ten samples was located.

money expended ranged from \$13,011.64 in one cooperative purchasing organization to approximately \$1,250,000 in another.

A more detailed explanation of specific reasons for including each of the ten organizations in the sample, listed alphabetically by state, is presented here.

Rocky Mountain School Study Council, Cooperative Purchasing Committee, Colorado. Throughout the United States, many of the metropolitan school districts are surrounded by a number of smaller school districts. This cooperative represented this type of setting and also added the interesting aspect of being sponsored by one of the sixty-six school study councils. Other factors which led to its selection were as follows: (1) the amount of money expended, approximately \$500,000, (2) the number of years in operation, 14, and (3) the location in Region 8.

Kent County Cooperative, Michigan. Since this cooperative, located in Region 3, had a large number of participating members, thirty, but with relatively small enrollments, it was believed that a familiarity with this organization would contribute to the purposes of this study. Other reasons which contributed to the placing of this cooperative in the sample were that it had seventeen years of operational experience and included parochial schools in its membership.

St. Louis County Cooperating School Business Officials, Missouri. Having gained a reputation over a period of sixteen years for being one of the finest cooperative purchasing organizations in the nation, it was believed appropriate to include this organization in the sample. The other reasons which contributed to its selection were as follows: (1) the amount of money expended, \$1,250,000 for items in 13 areas of purchase, (2) the wide range of enrollments, 1,150 to 19,295 students, in the 27 school districts, (3) the inclusion of a junior college in its membership, and (4) the location in Region 4.

Supervisory Union No. 27 Cooperative Purchasing Organization, New Hampshire. This cooperative was included in the sample because it represented the county unit plan of organization and was in Region 1. It was believed that this organization would provide especially pertinent data for the study because it had the following characteristics: (1) five school districts having an average enrollment of 1,274 students, (2) four years of operational experience, and (3) expenditures of approximately \$200,000 for items in 14 areas of purchase for the 1968-69 school year.

New Mexico Research and Study Council, Cooperative Purchasing Committee, New Mexico. Factors which determined inclusion of this cooperative in the sample were the wide geographic distribution of the

twenty-nine public school districts and the large number of participating members with small enrollments. Twenty of the members had an ADA of less than 1500 during the 1967-68 school year. This organization, sponsored by the University of New Mexico and located in Region 8, has been in operation 9 years and expended approximately \$1,000,000 for items in 12 areas of supplies and equipment for the 1968-69 school year.

Fairfield County Cooperative, Ohio. This cooperative, located in Region 3, was included in the sample because it was found to be the oldest of the eighty-four cooperative purchasing organizations. This cooperative was in the state of Ohio which had recently recommended the establishment of cooperative purchasing areas for all school districts in the state. Another reason which contributed to the inclusion of this purchasing group in the sample was the lack of a wide range of enrollments in the school districts. Three of the participating members had approximately 1500 students and the other four had approximately 1000 students.

Multnomah County Intermediate Education District Cooperative, Oregon. It was believed that an organization which had forty-three public school districts located in four counties would contribute to the purposes of this study. Other factors which led to the selection of this cooperative in the sample were as follows: (1) the ten years of operational experience, (2) the wide range of enrollments from 64 students to 9,594 students, (3) the expenditure of \$145,651.09 for items in 11 areas for the 1968-69 school year, and (4) the inclusion of city and county governmental purchasing departments.

Eastern Montgomery County School Districts' Cooperative Purchasing Board, Pennsylvania. Even though it has been in operation only three years, this cooperative, located in Region 2, was included in the sample because of its state and national recognition. An outstanding characteristic of the organization, in terms of items purchased and money expended, has been its rapid growth and expansion. One evidence of this growth was that the sum of \$518,456.13 was spent cooperatively for the 1968-69 school year. Another contributing factor which led to the selection of this organization was the development of a written joint purchasing agreement. Such agreements have been made by less than 18 per cent of the cooperatives in the United States.

Williamson County Cooperative Purchasing Organization, Texas. Since this organization had a county type cooperative purchasing arrangement, with a very small enrollment, its inclusion in the study seemed advantageous. The 13 districts had a total of 7,534 students, or an average of 580 students per school district. Other factors which determined including Williamson County, located in Region 7, in the sample were the limited areas of purchasing and amount of money expended cooperatively. Only \$13,011.64 was expended on 5 areas of supplies and

equipment for 1968-69, although the school districts have been purchasing collectively for sixteen years.

Spokane County School Directors' Cooperative Purchasing Association, Washington. An organization with an extremely large number of public school districts located in several counties was still another type of cooperative desired for the sample. This cooperative, composed of sixty public school districts in eleven counties, was exemplary of this type of organization. Other reasons which contributed to the inclusion of this cooperative, located in Region 9, were its twenty years of experience and the vast amount of printed materials, including a written purchasing agreement, that were available concerning the activities of this group.

Interviews

The materials furnished by the cooperative purchasing organizations and extracts from the literature in the field of school business and finance were utilized in the construction of an interview guide for the organizations. After the interview guide had been developed, a pilot study was conducted within a selected cooperative purchasing organization. The purposes of the pilot study were as follows: (1) to evaluate and improve the guide and the interview procedure, and (2) to help the interviewer develop experience in using the procedure before any research data for the main study was collected. A tape recording was made of the pilot study interview.

After selecting the ten organizations to be studied, as indicated previously, a schedule for the on-site visitations was made. A personal interview with the chairman or executive-secretary of the cooperative and others who were knowledgeable in the history and activities of the organization was requested by telephone.

All of the scheduled interviews were recorded on tape and transcribed so that further analyses of the interviews could be made. Materials, such as purchasing agreements or constitutions, copies of minutes, membership lists with student enrollments, standard purchasing lists, specifications, list of bidders, invitations to bidders, tabulation forms, and purchase order forms, were obtained while visiting the organizations. In addition to the scheduled interviews, contact was also made with other school personnel and visits made to schools and warehouses. Duration of the on-site visits ranged from four to eight hours. After the visitations, correspondence was also carried on with a number of the organizations to secure specific data not available at the time or to clarify questions about the data gathered.

Determination of Tentative Guidelines

The information and materials obtained during the on-site case studies provided the major portion of the background for the formulation of the tentative guidelines. Additional sources were the other seventy-two cooperatives, literature in the field of school business, state departments of education, and the Association of School Business Officials of the United States and Canada. The writer also gained further insight in the operational aspect of the cooperatives from attending several regularly scheduled meetings of one cooperative purchasing organization.

Validation of the Tentative Guidelines and Recommendations

Validation of the guidelines was achieved by submitting them to the person most knowledgeable in each of the eighty-four cooperative purchasing organizations found in this study. Usually the individual selected was either the chairman or the executive-secretary of the cooperative. The instrument which contained statements pertinent to cooperative purchasing was mailed to each of the eighty-four individuals. A list of these individuals appears in Appendix A.

Of the eighty-four instruments mailed, sixty-one were returned within a period of three weeks. A follow-up letter was then mailed to the remaining twenty-three organizations who had failed to return the instrument. After the follow-up letter was sent, nineteen instruments were returned and these raised the total number to eighty.

Tabulation of the returned instruments provided the basis for validating the tentative guidelines. It was predetermined that each statement would be considered valid when it was found by the Chi Square Test to be significant at or above the .05 level. A statement was accepted as a guideline when a significant number of respondents agreed that it was desirable. Those statements upon which the respondents disagreed at the predetermined .05 level of significance and those statements which did not meet the .05 level of significance were rejected as guidelines for cooperative purchasing procedures.

SUMMARY OF THE TEN CASE STUDIES

History and Organizational Structure

The ten cooperative purchasing organizations selected for the case studies had a total of 152 years of operational experience, an average of 15 years per cooperative. The number of years in operation ranged from three to forty-three years. Five of the organizations were located in states which have enacted legislation to permit school districts to purchase cooperatively. Only one organization had been incorporated and three have adopted a written purchasing agreement or constitution.

Five of the cooperatives grew out of pre-existing organizations or associations, two of which were school study councils. The other five cooperatives were formed as a result of school superintendents and business managers desiring to economize. Two cooperatives utilized outside assistance in organizing. The number of charter members ranged from three to forty school districts. Charter membership in each of the ten cooperatives included only public school districts. Since organizing, the membership in six of the organizations has increased, has remained static in one, and has decreased in three. The reduction in membership was due to consolidation of school districts in two of the organizations. Nine of the ten organizations reported that membership was open to public school districts. Five organizations encountered difficulties during the organizational period. These were as follows: (1) agreeing on specifications, (2) opposition from vendors, (3) decision on how operational costs should be prorated, and (4) opposition from school board members. Although five experienced difficulties, all ten groups were purchasing cooperatively before the end of the school year. Each of the ten organizations had an elected or appointed executive administrator to direct and coordinate the activities of the cooperative. To assist the executive director, eight of the organizations have appointed or elected school personnel to serve on cooperative purchasing committees. Three of the committees have met monthly, one has met quarterly, three have met twice each year, and one has met one time during the year. Minutes of the committee meetings have been kept by five of the committees. The committees have reported to a board of directors or board of education in five organizations.

Members of three of the cooperatives have paid yearly membership dues. Dues have been based on enrollment in two organizations and one has been a fixed amount. Three organizations have assessed the participating members a service or handling charge to purchase through the cooperative. Expenses directly arising from the operation of the organization have been handled as follows: (1) paid from dues or service charges by four cooperatives, (2) prorated among the participating members by three cooperatives, (3) assumed by the county office by two cooperatives, and (4) assumed by one school district in one cooperative. Eight of the joint purchasing groups did not pay any personnel during the first year of operation but one of the eight has employed personnel since the initial year.

The writing of specifications was given as the most troublesome problem in purchasing cooperatively by four organizations. Three organizations had the most difficulty with getting the members to return the standardized list of estimated needs.

Nine cooperatives have encountered opposition from vendors and have experienced unethical practices by the unsuccessful bidders.

The activities of the cooperatives have been evaluated yearly by nine of the organizations. Five of the joint purchasing groups have informed the public of the activities of the cooperatives by means of

newspaper articles. Information concerning cooperative purchasing has been shared with other organizations by seven of the ten groups studied. None of the organizations has used a systematic method to determine if the users have been satisfied with purchases made through the cooperative.

The organizations stated cooperative purchasing had the following advantages: (1) saves money, (2) saves time of school personnel by reduction of paperwork and by decreasing the calls by salesmen, (3) allows sharing of ideas and discussion of mutual problems, (4) permits school districts to borrow standard items from each other, (5) makes consolidation of school districts easier, (6) demands better inventory control and long range planning, (7) combines the best purchasing practices from each school district, (8) helps identify the quality of supplies and materials which is sufficient for the needs of the users, (9) causes members to become expert in certain areas of purchase, (10) results in a uniform cataloging system for items purchased, (11) provides for uniform testing, (12) eliminates pressure by salesmen, (13) encourages wider use of school supplies of a varied nature, (14) demands careful analysis of item specifications, (15) demands good housekeeping practices, (16) results in continuous price analysis of items, and (17) strengthens relationships between school districts in other activities.

The disadvantages of cooperative purchasing were stated as follows: (1) establishes one quality level for each item, (2) removes the user from decision making, (3) tends to eliminate the small local bidder, (4) forces school districts to abdicate the rights and privileges of local control, (5) may result in delayed deliveries, (6) creates storage problems for some districts, and (7) causes loss of service to users as a result of salesmen not visiting schools as frequently.

Items Purchased and Specifications

The cooperatives bought items in thirteen areas of purchase the initial year. Three of these areas, paper items, custodial supplies and instructional materials, were purchased by seven of the cooperatives. For the 1968-69 school year, the cooperatives purchased items in twenty-four areas. All ten organizations purchased items in three areas-- instructional materials, office supplies and paper items. Standardized lists of items to be purchased cooperatively have been maintained by the ten organizations. Six organizations stated that volume was the criterion used to determine which items would be placed on the lists. Four organizations used need as the criterion. Paper items, listed by five organizations, have given the cooperatives the least difficulty in purchasing. Six of the cooperatives stated that paper items had rendered the highest per cent of savings. Records of the cost of items and the volume bid have been maintained by all ten organizations. Participating members in seven of the organizations have paid the same price for items regardless of the volume purchased or the distance from the vendor. Storage was the principal factor which affected the time of purchase in nine organizations.

All of the organizations have followed a time schedule for selecting the items to be bid, developing the specifications and letting of the bids.

Specifications for the items to be purchased have been developed by a committee in eight organizations and by the program director in the other two. Users have occasionally assisted in developing the specifications in six organizations. The most frequently used sources for developing specifications were item description, used by ten cooperatives, and vendor's catalog and brand name, used by nine organizations. Six organizations have had no procedures to determine if items purchased met specifications. Performance has been the only test.

Bidding

A bidder list has been maintained by the program director or committee chairmen of all ten joint purchasing groups. Past performance or reputation has been the only qualifications required of a vendor. Invitations to bid have been mailed to the prospective bidders by the program director or committee chairman in ten of the organizations. All organizations have sent two or more copies of the invitation to bid. All ten cooperatives included the following statements in their bid invitations: (1) the organization's right to reject any or all bids, (2) the place, date, and time that bids will be received, (3) the place, time and days that items will be delivered, (4) the manner in which unit prices must be quoted, and (5) the signature and name of firm required. Six of the ten organizations have also published the invitation to bid in newspapers. The invitations to bid have been let once each year by seven cooperatives. Three organizations reported that an effort was made to take advantage of market fluctuations by placing orders at the time of lowest prices. Two cooperatives have allowed state vendors a 5 per cent advantage in bid price.

Only one organization required that a representative from each participating member be present at the time of the bid opening. Two of the organizations have not permitted the bidders to be present at the time the bids have been opened.

In addition to sending the purchase orders, six of the organizations have notified the successful bidders by means of a letter, a mimeograph list, or a telephone call. Four cooperatives have also notified the unsuccessful bidders and one has conducted a post bid conference.

Purchase Orders, Delivery, and Payment

In five of the cooperatives, the school districts have sent the purchase orders directly to the successful bidders. In the other five,

the purchase orders have been sent by the project director or committee chairmen, who have compiled the requests of the participating members.

Three of the cooperatives had all shipments delivered to a central warehouse. None of the three warehouses was owned by the cooperatives. In the other seven cooperatives, shipments have been made directly to the participating members. None of the seven anticipates central receiving. The majority of deliveries for all cooperatives have been made during the summer months.

Payments for merchandise received have been made directly to the suppliers by the members in six organizations. Payments have been made for the participating members in the other four organizations by the county school office or intermediate education district, who in turn have billed the members.

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This section presents the responses to the tentative guidelines and the recommendations in the form of validated guidelines designed to assist officials of public school districts in organizing a cooperative purchasing organization. The section contains three divisions: findings, conclusions, and recommendations.

Findings

A survey instrument containing sixty-five tentative guidelines was submitted to the person most knowledgeable in each of the eighty-four cooperatives found in this study. Of the eighty-four instruments, eighty or 95 per cent were returned.

The Chi Square test of significance was the statistical technique used to test the significance of the responses to the tentative guidelines. It was predetermined that each statement would be considered valid when it was found by the Chi Square test to be significant at or above the .05 level. Calculations reveal that the predetermined level of significance was met when the value of Chi Square was 3.841 or larger.

A statement was accepted as a guideline when a significant number of respondents agreed that it was desirable. These statements upon which the respondents disagreed at the predetermined .05 level of significance and those statements which did not meet the .05 level of significance were rejected as guidelines for cooperative purchasing procedures.

The survey instrument was composed of six sections: (1) Organization, (2) Items Purchased, (3) Specifications, (4) Bidding, (5) Purchase Orders, Payment, and Delivery, and (6) Evaluation.

Organization. The first section of the survey instrument was concerned with the organizational structure of a cooperative purchasing organization. This section contained a list of twenty statements, numbered 1-20.

Observation of Table II reveals that all of the twenty statements regarding the organizational structure of a cooperative were significant at the .05 level. A significant number of respondents disagreed with statement number 17.

Sixty-three respondents disagreed with statement number 17 regarding non-members being permitted to purchase through the cooperative. Disagreement with the statement was based upon the respondents' belief that non-members would be getting a "free-ride" by not sharing in the work load and in the cost of the operation.

Items purchased. The second section of the survey instrument was concerned with the items purchased through a cooperative purchasing organization. This section contained a list of seven statements, numbered 21-27.

Observation of Table III reveals that all of the seven statements regarding the items purchased cooperatively were significant at the .05 level.

Specifications. The third section of the survey instrument was concerned with the specifications of the items purchased through a cooperative purchasing organization. This section contained a list of five statements, numbered 28-32.

Observation of Table IV reveals that all of the five statements regarding the specifications of items purchased cooperatively were significant at the .05 level.

Bidding. The fourth section of the survey instrument was concerned with bidding procedures of a cooperative purchasing organization. This section contained a list of twenty statements, numbered 33-52.

Observation of Table V reveals that eighteen of the twenty statements regarding the bidding procedures of a cooperative were significant at the .05 level. A significant number of respondents disagreed with statements number 45 and 50. Statements number 36 and 42 failed to meet the predetermined .05 level of significance.

Fifty-nine respondents disagreed with statement number 45 which stated that state vendors should be given a price advantage. Disagreement with the statement was based on the respondents' belief that saving

TABLE II

RESPONSES TO AND VALIDATION OF STATEMENTS REGARDING
THE ORGANIZATIONAL STRUCTURE OF A COOPERATIVE

STATEMENTS	Responses			Validation	
	Agree	Disagree	No Responses	Chi Sq. Value	.05 level
1. To form a cooperative purchasing organization, the executive leaders of the school districts should first meet to determine the extent of interest.	79	0	1	80	76.05 yes
2. The school districts of a cooperative should be in proximity to each other.	62	18	0	80	24.20 yes
3. Attorneys for the school districts should determine the legality of forming a cooperative purchasing organization.	57	23	0	80	14.45 yes
4. The board of education of each school district should give its approval to the formation of a cooperative purchasing organization.	78	2	0	80	72.20 yes
5. The board of education or the superintendent should designate a representative to the cooperative purchasing organization.	76	4	0	80	64.80 yes
6. The aforementioned representatives from each school district would become the cooperative purchasing board.	66	12	2	80	33.80 yes
7. Prior to establishing purchasing policies and procedures, the cooperative purchasing board should consult personnel who are actively engaged in cooperative purchasing.	76	4	0	80	64.80 yes

TABLE II (Continued)

STATEMENTS	Agree	Disagree	Responses		Total	Validation	
			No	Responses		Chi Sq. Value	.05 level
8. The cooperative purchasing board should elect a president or chairman who should be responsible for the coordination of the cooperative's business transactions.	72	7	1		80	51.20	yes
9. The cooperative purchasing board should, as it deems necessary, elect other officers to assist the president in the operation of the cooperative.	74	5	1		80	57.80	yes
10. When board membership is too large to operate effectively, committees should be formed and their respective duties clearly defined.	74	6	0		80	57.80	yes
11. None of the members of the cooperative purchasing board or its committees should receive any remuneration for their services to the organization.	70	8	2		80	45.00	yes
12. The cooperative purchasing board should write and adopt a constitution and bylaws to govern its operation.	59	19	2		80	18.05	yes
13. Minutes should be kept of the meetings of the cooperative purchasing board and its committees.	72	5	3		80	51.20	yes
14. The cooperative purchasing board should adopt a procedure for admitting new members.	69	10	1		80	42.05	yes
15. If state law does not prohibit it, membership in the cooperative purchasing organization should be open to the agencies of city and county governments.	52	25	3		80	7.20	yes

TABLE II (Continued)

STATEMENTS	Responses			Validation	
	Agree	Disagree	No Responses	Chi Sq. value	.05 level
16. If state law does not prohibit it, membership in the cooperative purchasing organization should be open to parochial schools.	60	18	2	20.00	yes
17. The cooperative purchasing organization should permit non-members to purchase through the cooperative.	17	63	0	26.45	yes
18. The participating members should agree on the basis for paying expenses which arise directly from the operation of the cooperative purchasing organization.	78	2	0	72.20	yes
19. The cooperative purchasing board should adopt a calendar for regulating the business transaction of the cooperative.	77	3	0	68.45	yes
20. After its formation, the organization should call a meeting of the vendors and explain the purposes and policies of the cooperative.	53	27	0	8.45	yes

TABLE III
RESPONSES TO AND VALIDATION OF STATEMENTS REGARDING
ITEMS PURCHASED THROUGH A COOPERATIVE

STATEMENTS	Responses			Validation	
	Agree	Disagree	No Responses	Chi Sq. value	.05 level
21. During the first year of operation, the cooperative should confine its transactions to those items which are needed by a majority of the members.	72	7	1	51.20	yes
22. Participating school districts should agree on the minimum standards of quality to be required.	78	2	0	72.20	yes
23. Standardized lists of items should be maintained by the cooperative purchasing board or the committee responsible for a particular area of purchasing.	79	1	0	76.05	yes
24. The members should agree on the criteria that would be used to determine the items to be placed on the standardized lists.	80	0	0	80.00	yes
25. The members should indicate their needs for the ensuing year on the standardized lists.	78	2	0	72.20	yes
26. Members should be given a minimum of a month to determine their anticipated needs for the ensuing school year.	70	10	0	45.00	yes
27. The standardized lists of items should be revised annually.	77	3	0	68.45	yes

TABLE IV
RESPONSES TO AND VALIDATION OF STATEMENTS REGARDING
SPECIFICATIONS OF ITEMS PURCHASED THROUGH A COOPERATIVE

STATEMENTS	Responses			Validation	
	Agree	Disagree	No Responses	Total	Chi Sq. value .05 level
28. Specifications for the items to be purchased co-operatively should be developed by the cooperative purchasing board or one of its committees.	78	2	0	80	72.20 yes
29. Teachers, janitors, and other users should be involved in the development of specifications.	72	7	1	80	51.20 yes
30. The details of the specifications should be written succinctly so as to eliminate the possibility of misinterpretation by both suppliers and users.	80	0	0	80	80.00 yes
31. The cooperative purchasing board should adopt a procedure to determine if items purchased meet the specifications and give satisfactory performance.	78	2	0	80	72.20 yes
32. The specifications should be revised annually.	72	8	0	80	51.20 yes

TABLE V

RESPONSES TO AND VALIDATION OF STATEMENTS REGARDING
BIDDING PROCEDURES OF A COOPERATIVE

STATEMENTS	Responses			Validation	
	Agree	Disagree	No Responses	Chi Sq. value	.05 level
33. The cooperative purchasing organization should make an effort to take advantage of the seasonal price fluctuations and let bids at times of lowest prices.	78	2	0	80	72.20 yes
34. The cooperative purchasing organization should develop and maintain lists of potential bidders.	80	0	0	80	80.00 yes
35. The cooperative purchasing board should adopt requirements which a vendor must meet if the name of his firm is to be placed on the list.	76	4	0	80	64.80 yes
36. When the cooperative is ready to release bid invitations, a bidders' conference should be held to discuss items to be bid and to clarify any questions concerning specifications.	40	39	1	80	0.00 no
37. The bid invitation should indicate the names of the cooperative members and the volume each will purchase.	64	16	0	80	28.80 yes
38. The bid invitation should state the time and place of bid opening, required delivery date, and the instructions for delivery.	80	0	0	80	80.00 yes

TABLE V (Continued)

STATEMENTS	Responses			Validation	
	Agree	Disagree	No Responses	Chi Sq. value	.05 level
39. Bidders on the bid list should be sent a minimum of two copies of the bid invitation.	76	4	0	64.80	yes
40. Cooperative purchasing organizations, where it has not been legally decreed, should advertise for bids through the newspaper.	50	29	1	5.00	yes
41. The cooperative purchasing organization should allow the bidders a minimum of four weeks to prepare and submit their bids.	52	27	1	7.20	yes
42. Representatives from each participating school district should be present at the time the bids are opened.	40	40	0	0.00	no
43. Bidders should be permitted to be present at the bid opening.	75	5	0	61.25	yes
44. At the bid opening, the bids should be tabulated and reviewed.	64	16	0	28.80	yes
45. Cooperative purchasing organizations, where it has not been legally decreed, should give state vendors a price advantage.	17	59	4	18.05	yes
46. The members of the cooperative purchasing board should adopt standards for selecting successful bidders.	79	1	0	76.05	yes

TABLE V (Continued)

STATEMENTS	Responses			Validation	
	Agree	Disagree	No Responses	Chi Sq. value	.05 level
47. Participating members should be willing to abide by majority decisions on quality standards and the award of contracts.	78	2	0	80	72.20 yes
48. The successful bidders should be notified by some means within two weeks that they have been selected as the suppliers.	75	5	0	80	61.25 yes
49. All suppliers who have made unsuccessful bids should be informed that their bids have been rejected.	74	6	0	80	57.80 yes
50. After the awarding of the bids, a post bidders' conference should be held to explain the reasons for the bid awards and rejections.	20	60	0	80	20.00 yes
51. The names of the successful bidders and the award winning bid prices on the various items should be sent to the participating members.	72	8	0	80	51.20 yes
52. After the successful bidders have been selected, each participating member should have the right to increase or decrease the quantity of any item by the percentage agreed upon by the members and stated in the bid invitation.	59	21	0	80	18.05 yes

money for the taxpayers was more important than giving state vendors a price advantage.

Sixty respondents disagreed with statement number 50 regarding the cooperative's holding a post bidders' conference to explain the reasons for the bid awards and rejections. Disagreement with the statement was based on the respondents' beliefs that such a conference would be too time consuming and that explanations should be given only when requested.

Thirty-nine respondents disagreed with statement number 36 regarding the cooperative's holding a bidders' conference prior to the releasing of the bid invitations. Disagreement with the statement was based on the respondents' beliefs that such a meeting would not be necessary if specifications were written properly, would be too time consuming, and could lead to collusion by the bidders.

Forty respondents disagreed with statement number 42 which stated that representatives from each participating school district should be present at the time the bids are opened. Disagreement with the statement was based on the respondents' belief that representatives should be invited to the bid opening but attendance should be optional.

Purchase orders, payment, and delivery. The fifth section of the survey instrument was concerned with the purchase orders, payment, and delivery of items purchased through a cooperative purchasing organization. This section contained a list of seven statements, numbered 53-59.

Observation of Table VI reveals that all of the seven statements regarding purchase orders, payment, and delivery of items purchased cooperatively were significant at the .05 level.

Evaluation. The sixth section of the survey instrument was concerned with the evaluation of the activities and procedures of a cooperative purchasing organization. This section contained a list of six statements, numbered 60-65.

Observation of Table VII reveals that all of the six statements regarding the evaluation of the activities and procedures of a cooperative were significant at the .05 level.

Conclusions

On the basis of the findings, conclusions relative to cooperative purchasing among public school districts were formulated. The conclusions are presented as they relate to the various procedures.

TABLE VI

RESPONSES TO AND VALIDATION OF STATEMENTS REGARDING PURCHASE ORDERS,
PAYMENT, AND DELIVERY OF ITEMS PURCHASED THROUGH A COOPERATIVE

STATEMENTS	Agree	Disagree	Responses		Total	Validation	
			No	Responses		Chi Sq. value	.05 level
53. Each member in a cooperative purchasing organization should send its purchase orders directly to the successful bidders.	52	28	0	80	7.20		yes
54. Each member should send a copy of the purchase order to the cooperative purchasing board or committee in charge of that area of purchase.	57	22	1	80	14.45		yes
55. After award of contracts, each member should transact business directly with successful bidders.	54	24	2	80	9.80		yes
56. The cooperative should conduct a study to determine if members would gain financially by having either centralized warehousing for the cooperative or by having merchandise delivered to each participating member.	70	8	2	80	45.00		yes
57. Each participating member should receive the same unit price per item regardless of the volume purchased.	75	5	0	80	61.25		yes
58. Suppliers should send bills directly to each participating member of the cooperative.	66	14	0	80	33.80		yes
59. Payments for the supplies and equipment should be sent directly from each participating member to the supplier.	66	14	0	80	33.80		yes

TABLE VII

RESPONSES TO AND VALIDATION OF STATEMENTS REGARDING EVALUATION OF
THE ACTIVITIES AND PROCEDURES OF A COOPERATIVE

STATEMENTS	Responses			Validation	
	Agree	Disagree	No Responses	Total	Chi Sq. value .05 level
60. The activities and procedures of a cooperative purchasing organization should be evaluated annually and a report written on the findings.	77	3	0	80	68.45 yes
61. The cooperative should develop a systematic procedure to determine if the teachers, janitors, and other users are satisfied with the purchases made through the organization.	76	4	0	80	64.80 yes
62. The cooperative should maintain adequate records of the quantities of those items for which bids were received, the cost of the items, the amount of purchasing done by the individual school districts, and the savings incurred by purchasing cooperatively.	76	4	0	80	64.80 yes
63. Copies of the written evaluation should be distributed to school administrators and to school board members of each participating district.	74	5	1	80	57.80 yes
64. Information concerning the cooperative should be released to the news media.	76	2	2	80	64.80 yes
65. The cooperative purchasing organization should exchange information with other cooperative purchasing groups.	80	0	0	80	80.00 yes

Organization. Since the tests of significance for the twenty statements, numbered 1-20, regarding the organizational structure of a cooperative reached or exceeded the value of 3.841, it is concluded that the null hypothesis should be rejected for each of these tentative guidelines and that these twenty statements are validated.

Although a negative response was received for statement number 17 regarding non-members being permitted to purchase through the cooperative, the test of significance exceeded the value of 3.841. It is concluded that the respondents did not agree with the statement and, therefore, non-members should not be permitted to purchase through the cooperative.

Items purchased. Since the test of significance for the seven statements, numbered 21-27, regarding the items purchased through a cooperative reached or exceeded the value of 3.841, it is concluded that the null hypothesis should be rejected for each of these tentative guidelines and that these seven statements are validated.

Specifications. Since the test of significance for the five statements, numbered 28-32, regarding the specifications of the items purchased through a cooperative reached or exceeded the value of 3.841, it is concluded that the null hypothesis should be rejected for each of these tentative guidelines and that these five statements are validated.

Bidding. Since the tests of significance for eighteen of the twenty statements, numbered 33-52, regarding bidding procedures of a cooperative reached or exceeded the value of 3.841, it is concluded that the null hypothesis should be rejected for each of these eighteen tentative guidelines and that these eighteen statements are validated.

Although negative responses were received for statements number 45 and 50, the tests of significance exceeded the value of 3.841. It is concluded that the respondents did not agree with the statements. Therefore, state vendors should not be given a price advantage and a post bidders' conference should not be held.

Statements number 36 and 42 failed to reach the value of 3.841 and it is concluded that the null hypothesis should be accepted for each of these two tentative guidelines and that these two statements are not validated.

Purchase orders, payment, and delivery. Since the tests of significance for the seven statements, numbered 53-59, regarding the purchase orders, payment, and delivery of items purchased through a cooperative reached or exceeded the value of 3.841, it is concluded that the null hypothesis should be rejected for each of these tentative guidelines and that these seven statements are validated.

Evaluation. Since the test of significance for the six statements, numbered 60-65, regarding the evaluation of the activities and procedures of a cooperative reached or exceeded the value of 3.841, it is concluded that the null hypothesis should be rejected for each of these tentative guidelines and that these six statements are validated.

Recommendations

The statements validated by the respondents at the .05 level of significance are recommended in the form of guidelines to assist officials of public school districts who desire to organize for the purpose of purchasing supplies and equipment cooperatively.

The guidelines are presented in six sections: (1) Organization, (2) Items Purchased, (3) Specifications, (4) Bidding, (5) Purchase Orders, Payment, and Delivery, and (6) Evaluation.

Organization.

1. To form a cooperative purchasing organization, the executive leaders of the school districts should first meet to determine the extent of interest.
2. The school districts of a cooperative should be in proximity to each other.
3. Attorneys for the school districts should determine the legality of forming a cooperative purchasing organization.
4. The board of education of each school district should give its approval to the formation of a cooperative purchasing organization.
5. The board of education or the superintendent should designate a representative to the cooperative purchasing organization.
6. The aforementioned representatives from each school district would become the cooperative purchasing board.
7. Prior to establishing purchasing policies and procedures, the cooperative purchasing board should consult personnel who are actively engaged in cooperative purchasing.
8. The cooperative purchasing board should elect a president or chairman who should be responsible for the coordination of the cooperative's business transactions.

9. The cooperative purchasing board should, as it deems necessary, elect other officers to assist the president in the operation of the cooperative.
10. When board membership is too large to operate effectively, committees should be formed and their respective duties clearly defined.
11. None of the members of the cooperative purchasing board or its committees should receive any remuneration for their services to the organization.
12. The cooperative purchasing board should write and adopt a constitution and bylaws to govern its operation.
13. Minutes should be kept of the meetings of the cooperative purchasing board and its committees.
14. The cooperative purchasing board should adopt a procedure for admitting new members.
15. If state law does not prohibit it, membership in the cooperative purchasing organization should be open to the agencies of city and county governments.
16. If state law does not prohibit it, membership in the cooperative purchasing organization should be open to parochial schools.
17. The cooperative purchasing organization should not permit non-members to purchase through the cooperative.
18. The participating members should agree on the basis for paying expenses which arise directly from the operation of the cooperative purchasing organization.
19. The cooperative purchasing board should adopt a calendar for regulating the business transactions of the cooperative.
20. After its formation, the organization should call a meeting of the vendors and explain the purposes and policies of the cooperative.

Items purchased.

1. During the first year of operation, the cooperative should confine its transactions to those items which are needed by a majority of the members.

2. Participating school districts should agree on the minimum standards of quality to be required.
3. Standardized lists of items should be maintained by the cooperative purchasing board or the committee responsible for a particular area of purchasing.
4. The members should agree on the criteria that would be used to determine the items to be placed on the standardized lists.
5. The members should indicate their needs for the ensuing year on the standardized lists.
6. Members should be given a minimum of a month to determine their anticipated needs for the ensuing school year.
7. The standardized lists of items should be revised annually.

Specifications.

1. Specifications for the items to be purchased cooperatively should be developed by the cooperative purchasing board or one of its committees.
2. Teachers, janitors, and other users should be involved in the development of specifications.
3. The details of the specifications should be written succinctly so as to eliminate the possibility of misinterpretation by both suppliers and users.
4. The cooperative purchasing board should adopt a procedure to determine if items purchased meet the specifications and give satisfactory performance.
5. The specifications should be revised annually.

Bidding.

1. The cooperative purchasing organization should make an effort to take advantage of the seasonal price fluctuations and let bids at times of lowest prices.
2. The cooperative purchasing organization should develop and maintain lists of potential bidders.
3. The cooperative purchasing board should adopt requirements which a vendor must meet if the name of his firm is to be placed on the list.

4. The bid invitation should indicate the names of the cooperative members and the volume each will purchase.
5. The bid invitation should state the time and place of bid opening, required delivery date, and the instructions for delivery.
6. Bidders on the bid list should be sent a minimum of two copies of the bid invitation.
7. Cooperative purchasing organizations, where it has not been legally decreed, should advertise for bids through the newspapers.
8. The cooperative purchasing organization should allow the bidders a minimum of four weeks to prepare and submit their bids.
9. Bidders should be permitted to be present at the bid opening.
10. At the bid opening, the bids should be tabulated and reviewed.
11. Cooperative purchasing organizations, where it has not been legally decreed, should not give state vendors a price advantage.
12. The members of the cooperative purchasing board should adopt standards for selecting successful bidders.
13. Participating members should be willing to abide by majority decisions on quality standards and the award of contracts.
14. The successful bidders should be notified by some means within two weeks that they have been selected as the suppliers.
15. All suppliers who have made unsuccessful bids should be informed that their bids have been rejected.
16. After the awarding of the bids, a post bidders' conference should not be held to explain the reasons for the bid awards and rejections.
17. The names of the successful bidders and the award winning bid prices on the various items should be sent to the participating members.
18. After the successful bidders have been selected, each participating member should have the right to increase or decrease the quantity of any item by the percentage agreed upon by the members and stated in the bid invitation.

Purchase orders, payment, and delivery.

1. Each member in a cooperative purchasing organization should send its purchase orders directly to the successful bidders.
2. Each member should send a copy of the purchase order to the cooperative purchasing board or committee in charge of that area of purchase.
3. After award of contracts, each member should transact business directly with successful bidders.
4. The cooperative should conduct a study to determine if members would gain financially by having either centralized warehousing for the cooperative or by having merchandise delivered to each participating member.
5. Each participating member should receive the same unit price per item regardless of the volume purchased.
6. Suppliers should send bills directly to each participating member of the cooperative.
7. Payment for the supplies and equipment should be sent directly from each participating member to the supplier.

Evaluation.

1. The activities and procedures of a cooperative purchasing organization should be evaluated annually and a report written on the findings.
2. The cooperative should develop a systematic procedure to determine if the teachers, janitors, and other users are satisfied with the purchases made through the organization.
3. The cooperative should maintain adequate records of the quantities of those items for which bids were received, the cost of the items, the amount of purchasing done by the individual school districts, and the savings incurred by purchasing cooperatively.
4. Copies of the written evaluation should be distributed to school administrators and to school board members of each participating district.
5. Information concerning the cooperative should be released to the news media.
6. The cooperative purchasing organization should exchange information with other cooperative purchasing groups.

PROBLEMS FOR FURTHER STUDY

This section presents suggestions for further study pertaining to cooperative purchasing procedures. They are as follows:

1. To ascertain the reasons why both the concepts and practices of cooperative purchasing have not gained wider acceptance.
2. To determine the most effective method of financing a cooperative purchasing organization.
3. To determine the optimum size of a cooperative purchasing organization.
4. To develop a procedure to compute the amount of savings on items purchased through a cooperative purchasing organization.
5. To establish a systematic procedure to determine if items purchased cooperatively meet specifications.
6. To establish a systematic procedure to determine if teachers, janitors, and other users are satisfied with the items purchased cooperatively.
7. To develop methods of establishing better relationship between vendors and members of the cooperative purchasing organization.

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APPENDIX A

PERSONNEL OF COOPERATIVE PURCHASING ORGANIZATIONS

California

1. Dr. John J. Hamilton
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Los Angeles County Office of Education
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2. Mr. Paul W. Leeds*
Consultant - Business Services
San Diego County Schools
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3. Dr. Tony Turcotte*
Administrative Assistant - Business Services
Placer County Office of Education
1230 High Street
Auburn, California 95603

Colorado

4. Mr. F. K. Howerton, Director*
San Luis Valley Board of Cooperative
Services
Adams State College
Box 94
Alamosa, Colorado 81101
5. Mr. L. D. Laird, Director*
Southeast Board of Cooperative Services
Lamar Community College
Lamar, Colorado 81052
6. Mr. Warren McClurg, Director*
Logan County Board of Cooperative Services
Buffalo School - Re 4
Merino, Colorado 80741
7. Mr. Jearl B. Nunnelee, Director*
Arkansas Valley Board of Cooperative
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La Junta, Colorado 81050

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4/3 '44

Colorado (Continued)

8. Mr. Edgar A. Olander*
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Denver Public School District
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Denver, Colorado 80202
9. Mr. Herbert Oman, Director*
Northeast Board of Cooperative Services
315 East Fifth Street
Wray, Colorado 80758
10. Mr. Fred Seater, Director*
Weld County Board of Cooperative Services
Box 578
La Salle, Colorado 80645

Idaho

11. Mr. Leo E. Click*
Business Manager
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Box 662
Lewiston, Idaho 83501
12. Mr. W. R. Kennedy, Director*
Business and Maintenance Services
1207 Fort Street
Boise, Idaho 83702

Illinois

13. Mr. Alvin Kennedy*
Assistant Superintendent - Business
School District No. 129
80 South River Street
Aurora, Illinois 60507
14. Mr. D. C. Shinneman*
Assistant Superintendent - Business
School District 67
95 West Deer Path
Lake Forest, Illinois 60045
15. Mr. Arlyn E. Waite*
Business Manager
School District No. 46
145 Arthur Street
Elmhurst, Illinois 60126
16. Mr. Herbert R. Wenger*
Assistant Superintendent - Operations
School District 108
530 Red Oak Lane
Highland Park, Illinois 60035

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- Indiana 17. Mr. Robert H. Nelson, Executive Secretary*
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- Iowa 18. Dr. K. W. Miller*
Assistant Superintendent - Business
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Des Moines, Iowa 50309
19. Mr. R. M. Speas, Superintendent*
Lee County Public Schools
P.O. Box 190
Fort Madison, Iowa 52627
- Kentucky 20. Mr. Curtis L. Boyles*
Director of Purchases
Jefferson County Public Schools
3332 Newburg Road
Louisville, Kentucky 40218
- Michigan 21. Mr. Robert G. Lutz, Deputy Superintendent*
Macomb Intermediate School District
44001 Garfield
Mt. Clemens, Michigan 48043
22. Mr. Gerald O. Steube*
Assistant Superintendent - Finance
Dearborn Heights School District No. 7
20629 Annapolis
Dearborn, Michigan 48125
23. Mr. J. B. Ward, Administrative Representative*
Kent County Cooperative School Purchasing
Group
R.R. No. 1
Clarksville, Michigan 48815
24. Mr. Rex Wood*
Director of Administrative Services
Oakland Schools
Campus Drive - County Service Center
Pontiac, Michigan 48053
- Minnesota 25. Mr. Allan F. Liebreinz*
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Independent School District No. 277
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Montana

27. Mrs. Grace Hansen, Superintendent*
Flathead County Public Schools
Kalispell, Montana 59901

New Hampshire

28. Mr. Wayne Evans, Business Administrator*
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29. Mr. Russell E. Fearon, Business Administrator*
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Milford, New Hampshire 03055
30. Mr. James A. Jordan, Business Administrator*
Supervisory Union No. 27
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31. Mr. Edgar A. Kenney, Business Administrator*
Supervisory Union No. 18
119 Central Street
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32. Mr. Robert D. Scarpowi, Business Adminis-
trator*
Supervisory Union No. 21
86 High Street
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33. Mrs. Blanche Turner, Business Administrator*
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Atkinson, New Hampshire 03811

New Mexico

34. Dr. Hebert Hughes, Executive Director*
New Mexico Research and Study Council
University of New Mexico
Albuquerque, New Mexico 87100

New York

35. Mr. Ross Driscoll, Business Manager*
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New York (Continued)

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New Paltz Central School District
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37. Mr. Ernest H. Hoeldtke, Director*
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99 Aero Road
Buffalo, New York 14225
38. Mrs. Mary Holden, Assistant Director*
Board of Cooperative Educational Services
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West Nyack, New York 10094
39. Mr. Thomas C. Iaia*
Supervisor of Purchases and Stores
City School District
13 South Fitzhugh Street
Rochester, New York 14614
40. Mr. Richard O. Reed*
Corning City School District
291 East First Street
Corning, New York 14830
41. Mr. Cecil Scott, Business Administrator*
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Box 32
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42. Dr. Gray N. Taylor, Director*
Board of Cooperative Educational Services
42 Triangle Center
Yorktown Heights, New York 10598
43. Mr. William Wizeman, Business Administrator*
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232 Dutchess Turnpike
Poughkeepsie, New York 12603

Ohio

44. Mr. Fred M. Daniel, Superintendent*
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Columbus, Ohio 43215
45. Mr. John B. Hardin, Superintendent*
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Ohio (Continued)

46. Mr. Linton R. Honaker, Superintendent*
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261 West High Avenue
New Philadelphia, Ohio 44662
47. Mr. Robert Kalish, Superintendent*
Fairfield County School District
Court House
Lancaster, Ohio 43130
48. Mr. Raymond W. Lawrence, Superintendent*
Miami County School District
212 West Main Street
Troy, Ohio 45373
49. Mr. D. Russel Lee, Superintendent*
Butler County School District
3rd and Ludlow Streets
Hamilton, Ohio 45011
50. Mr. Thornton McCay, Superintendent*
Green Local Schools
512 Parkview
Smithville, Ohio 44677
51. Mr. Fred Manning, Superintendent*
Cuyahoga County School District
Room 317 C.A.C. Building
1148 Euclid Avenue
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52. Mr. Elmer P. Marks, Superintendent*
Wood County School District
541 West Wooster Street
Bowling Green, Ohio 43402
53. Mr. Harry R. Moore, Superintendent*
Clermont County School District
Batavia, Ohio 45103
54. Mr. Walter N. Nichols, Superintendent*
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Oregon

58. Dr. William C. Jones, Superintendent*
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59. Mr. Ray Neugart, Superintendent*
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Pennsylvania

61. Mr. Cardin Brown
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62. Mr. Thomas W. Brownback*
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78. Mr. Roy Durst, Coordinator*
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79. Mr. James M. Kavanaugh, Coordinator*
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80. Mrs. Doris Kraemer, Coordinator*
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